


# Transforming the Muncie Mall into a Community Sustainability Hub

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Urban Planning space in Muncie Mall

## Transforming the Muncie Mall into a Community Sustainability Hub

Students in this course have worked to develop proposals to transform the Muncie Mall into a sustainability center for the Muncie community. Interdisciplinary student teams used specialized disciplinary knowledge and skills to plan projects that they have presented and discussed with local business and government leaders.

### Community partners for this course are:

Jay Julian of the *Muncie-Delaware County Chamber of Commerce*; Traci Lutton of the *Muncie-Delaware County Economic Development Alliance*; and Mayor Dan Ridenour of the *City of Muncie Office of the Mayor*.

### Other course partners:

Tim Kean, *Second Harvest*; Ashley Mann, *Minnetrista*; Josh Gruver, *Muncie Food Hub Partnership*; Jon Anderson, *Muncie Sports Commission*; Zane Bishop, *City of Muncie*.

## **Students:**

Conner Becker, Brittan Brady, Devin Bridget, Jessica Carroll, Georgia Cushing, Jack Field, Hannah Hubble, Alvin Languerre, Alexandra Lawburg, John Maegerlein, Caitlin Osburn, Erin Powell, Michael Shirley, Carter Solivan, Dominic Zelli

## **Credits**

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Dr. Sarah Keogh, Department of Architecture

Final Design Posters →

Transforming the Muncie Mall into a Community Sustainability Hub



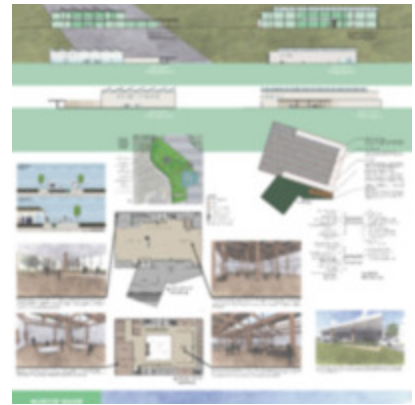
# Final Design Posters

 [digitalresearch.bsu.edu/immersive-learning-showcase-2021/exhibits/show/transforming-the-muncie-mall-i/final-design-posters](https://digitalresearch.bsu.edu/immersive-learning-showcase-2021/exhibits/show/transforming-the-muncie-mall-i/final-design-posters)

Final Posters - Click through to expand.

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Final Design Posters



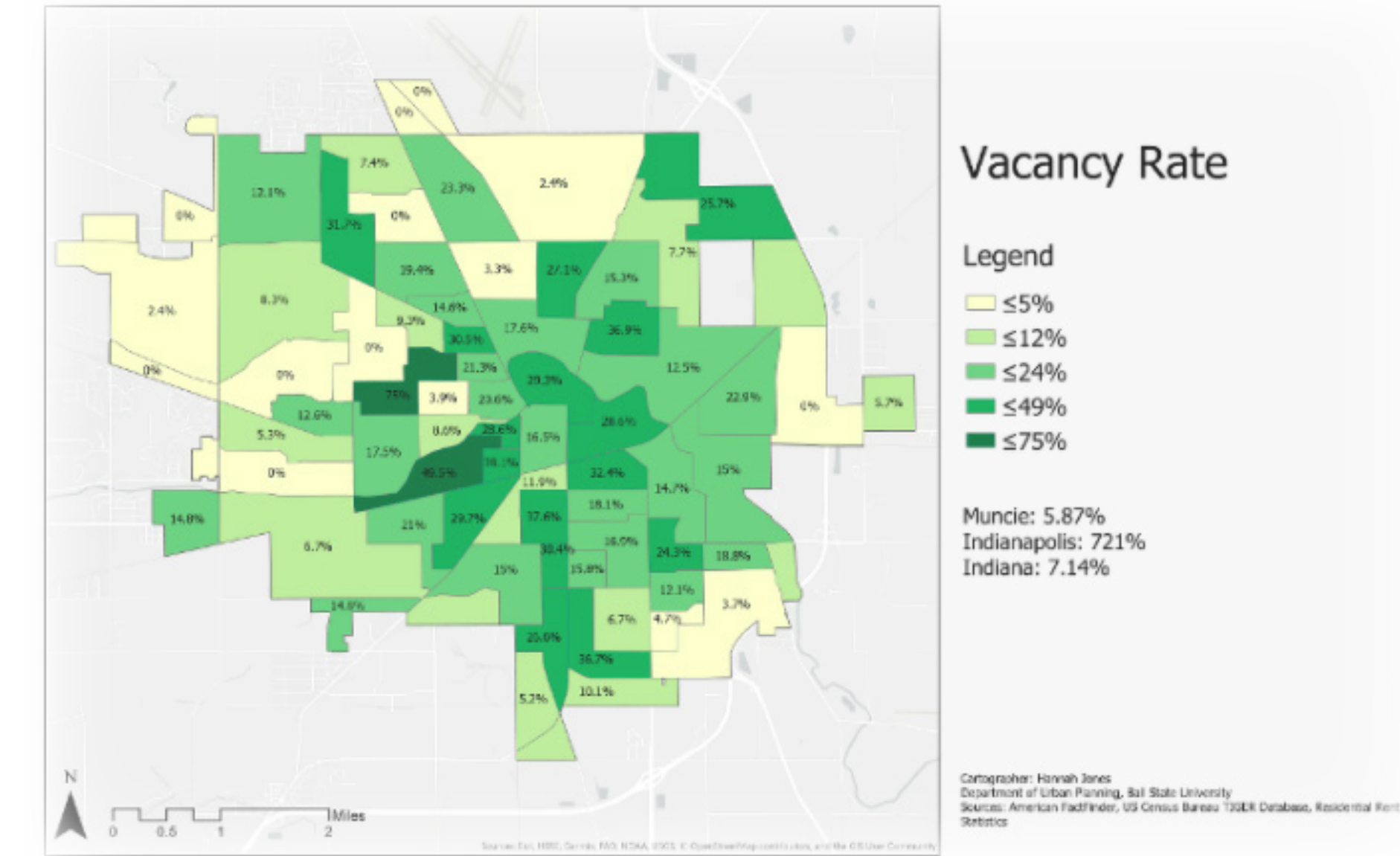
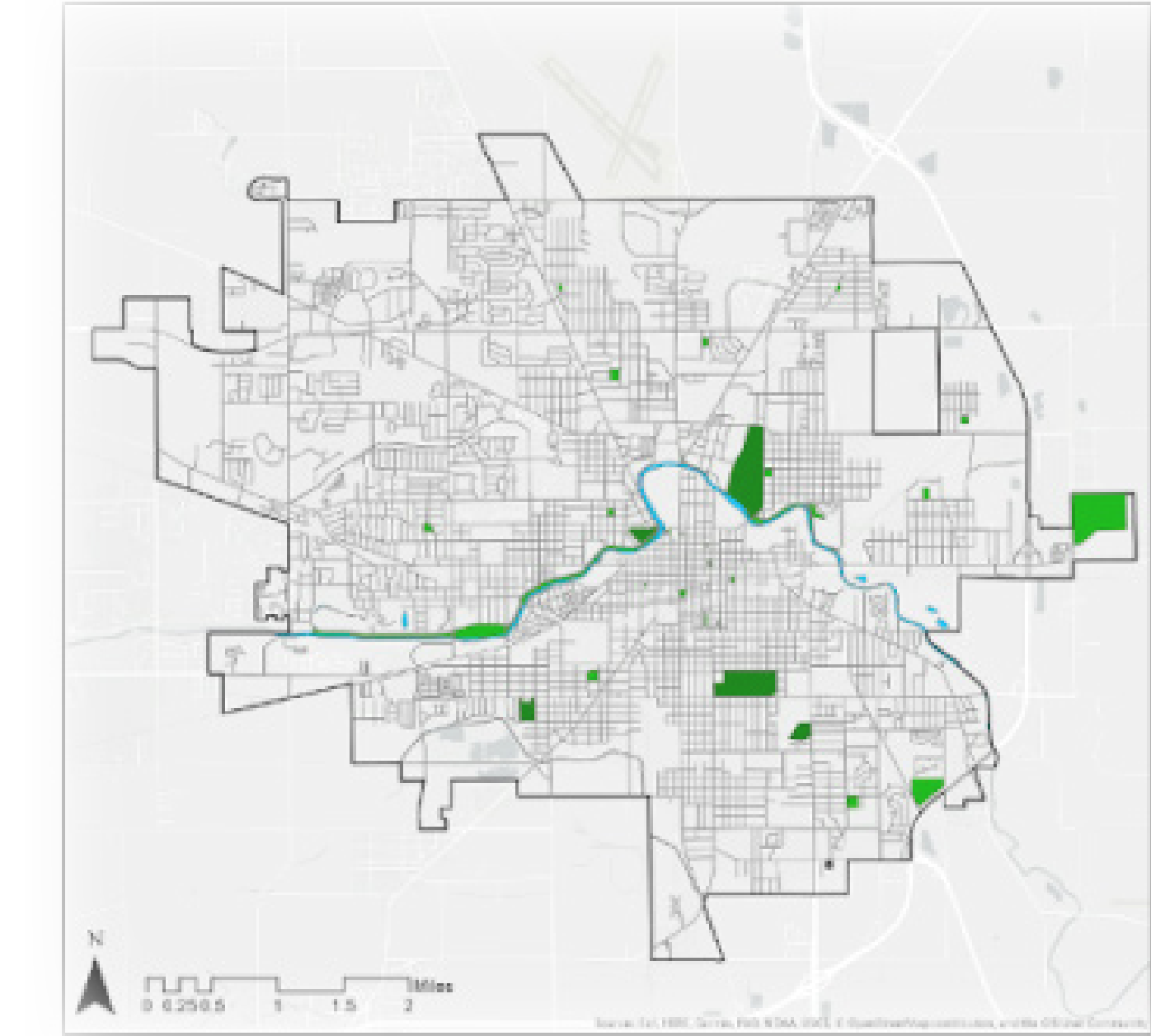




# CENTER FOR NATURE ENGAGEMENT

Michael Shirley, Brittan Brady, Devin Bridget, Caitlin Osburn

The planet is in a climate induced environmental crisis accelerated by anthropogenic sources. There is a lack of environmental concern and knowledge amongst consumption motivated nations, of which contribute the most to anthropogenic global warming. In order to ensure there remains viable habitat, resources, and quality of life for future generations, current populations need to take part in more sustainable lifestyles. The issue at hand is that the public lacks knowledge on sustainable systems, ecological mechanisms, and how our actions affect the environment and the resources around us.



Muncie residents to reconnect with nature. Emphasising the importance of sustainability, education, and community, we hope to create a solution that transforms the vacant anchor store of the Muncie Mall into an engaging space for interaction with nature that connects the Muncie community. We want to provide education for children and adults about the processes of the natural environment, sustainable practices, and how to live a more environmentally conscious lifestyle through an engaging, experiential environment.

We believe the Center for Nature Engagement could provide all this while offering a space of gathering and coordination for the community and creating a hub of organization for existing Muncie organizations and environmental programs.

Along with the lack of environmental knowledge and concern, Muncie suffers from lack of quality greenspace, areas for community engagement, coordination of community programs, and has experienced a rise in vacant properties. With limited greenspaces and public community parks, there is a disconnect from nature for the Muncie Residents (see figure 1), which makes it increasingly more difficult to care about environmental efforts and living more sustainably lifestyles. Muncie has a surplus of vacant spaces and dead commercial properties (see figure 2).

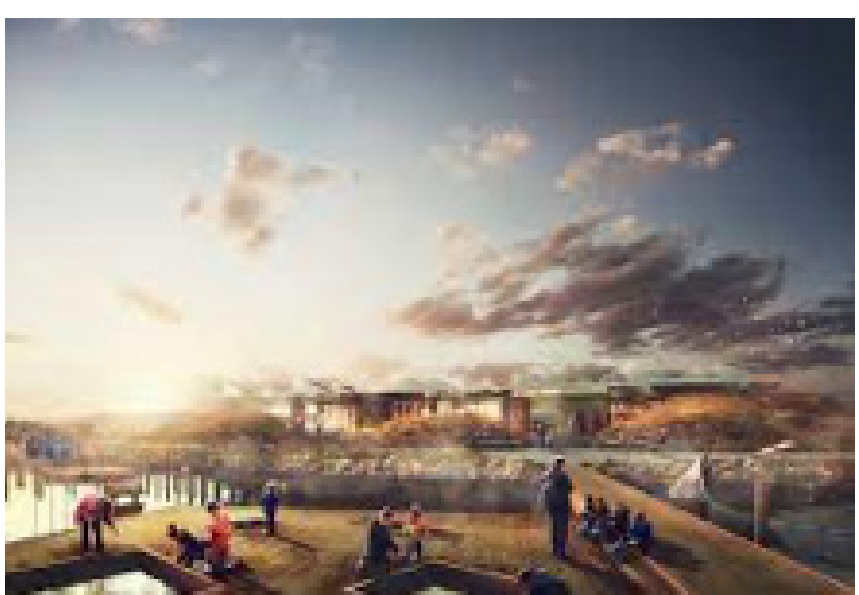
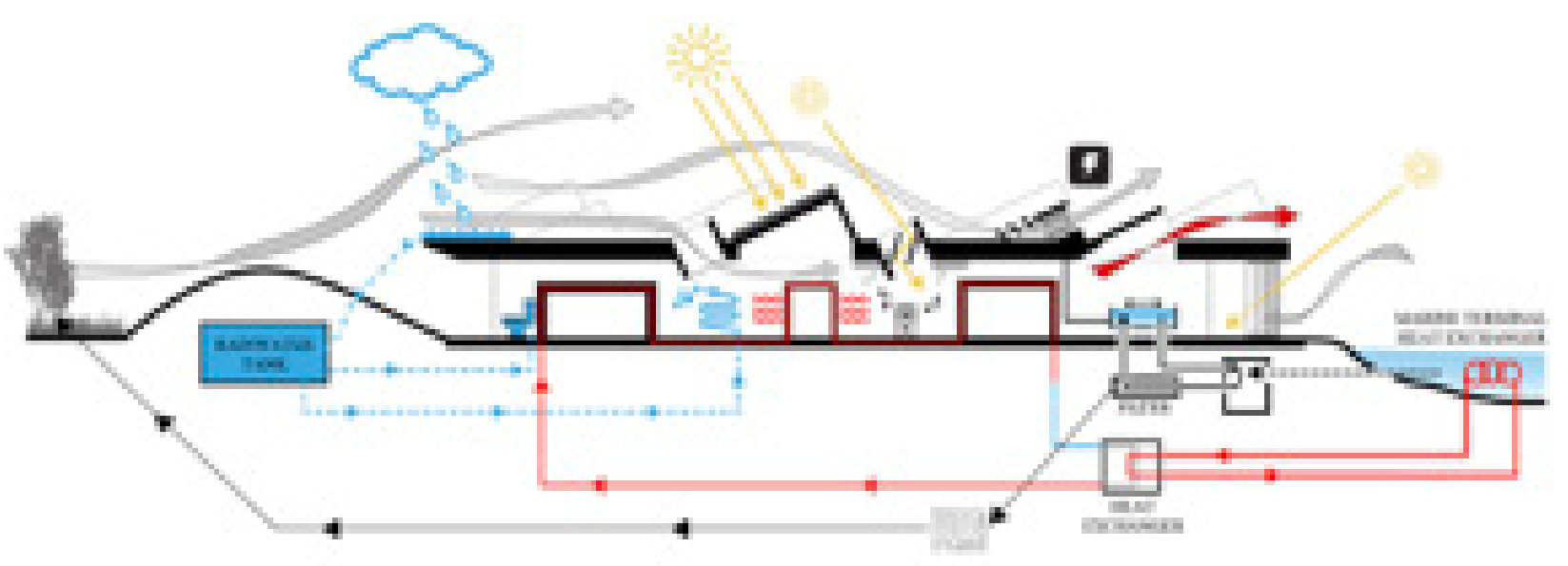
The Muncie Mall is a dying space with all four anchor stores already closed. Muncie is home to about 70 thousand students and residents, and 30% of the population is living in poverty (Sustainable Muncie Project, 2020). It is obvious that muncie residents are not engaged with the mall experience and a retail space does not benefit the community. With a lack of green spaces, community engagement, and environmental awareness, there is a great need for an accessible, engaging experience that can transform the muncie mall into a community hub that educates and stresses the importance of sustainability.

We wish to propose an ecologically focused environment that models sustainable development, provides a space for community engagement, promotes education, and allows

## Precedent Analysis

### Malmo Marine Education Center

Under a huge roof, where landscape and building become one, visitors can learn about sustainability and people's impact on the marine life. As a beacon of sustainability, the center is integrated with energy-efficient technologies including solar panels, geothermal heat exchangers and rainwater collection systems.



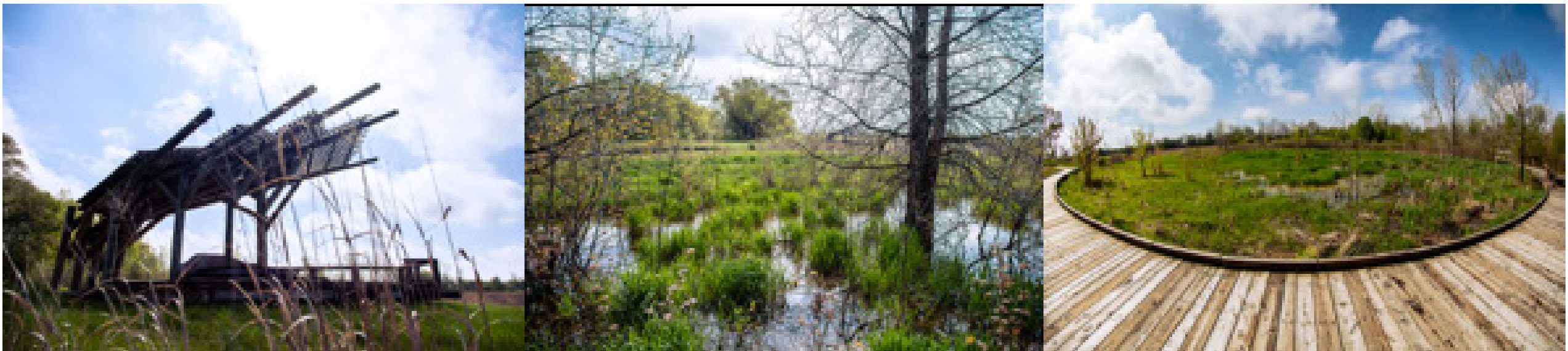
### James Clarkson Environmental Discovery Center

This design had an environmental education center, then in the gardens, they created micro-ecosystems to display how wetlands, forests, ect. work in that region. Their main goal was to integrate restoration into school education. After school programs included a working laboratory, invasive plant removal classes, native plants, wetland education, and agriculture.



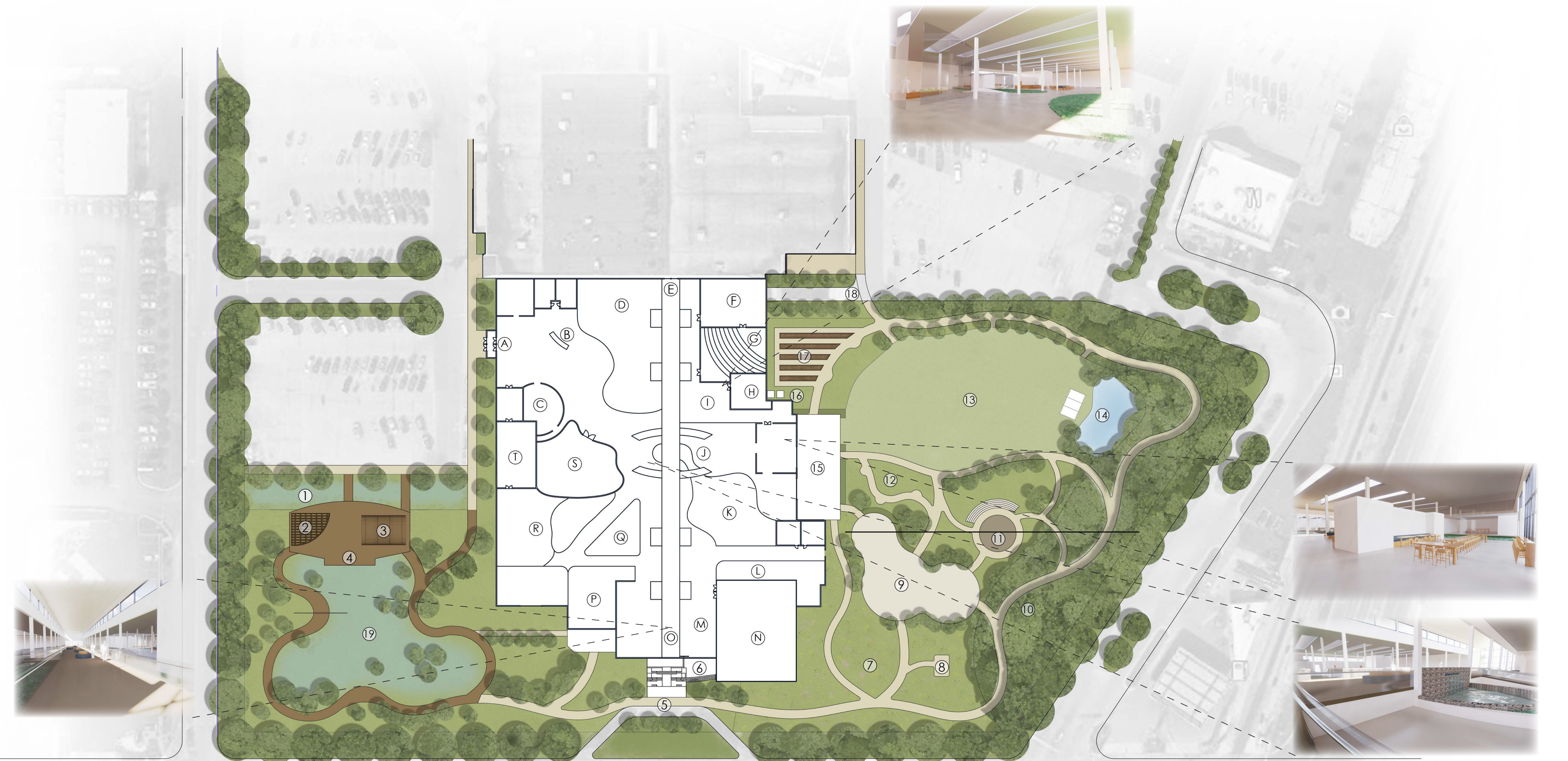
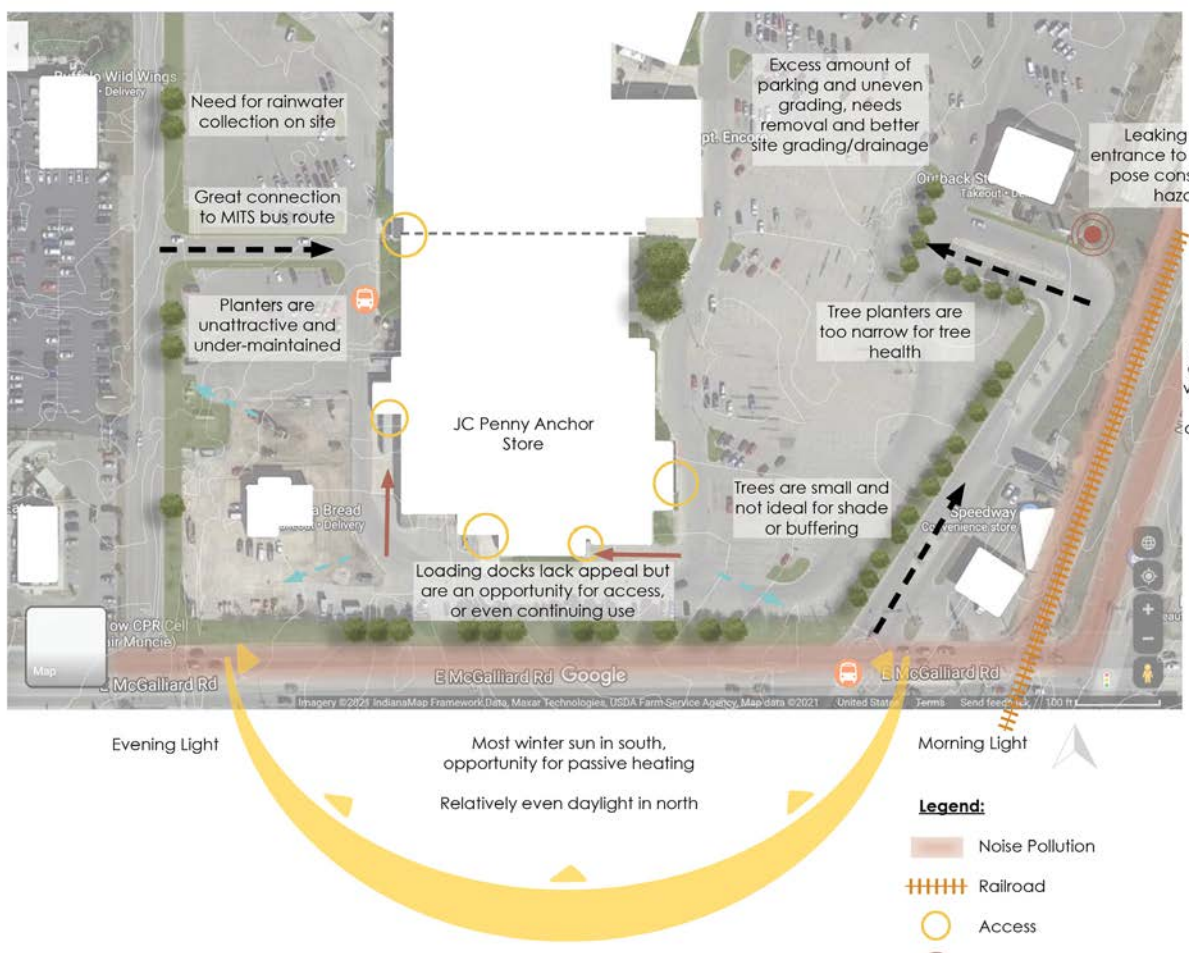
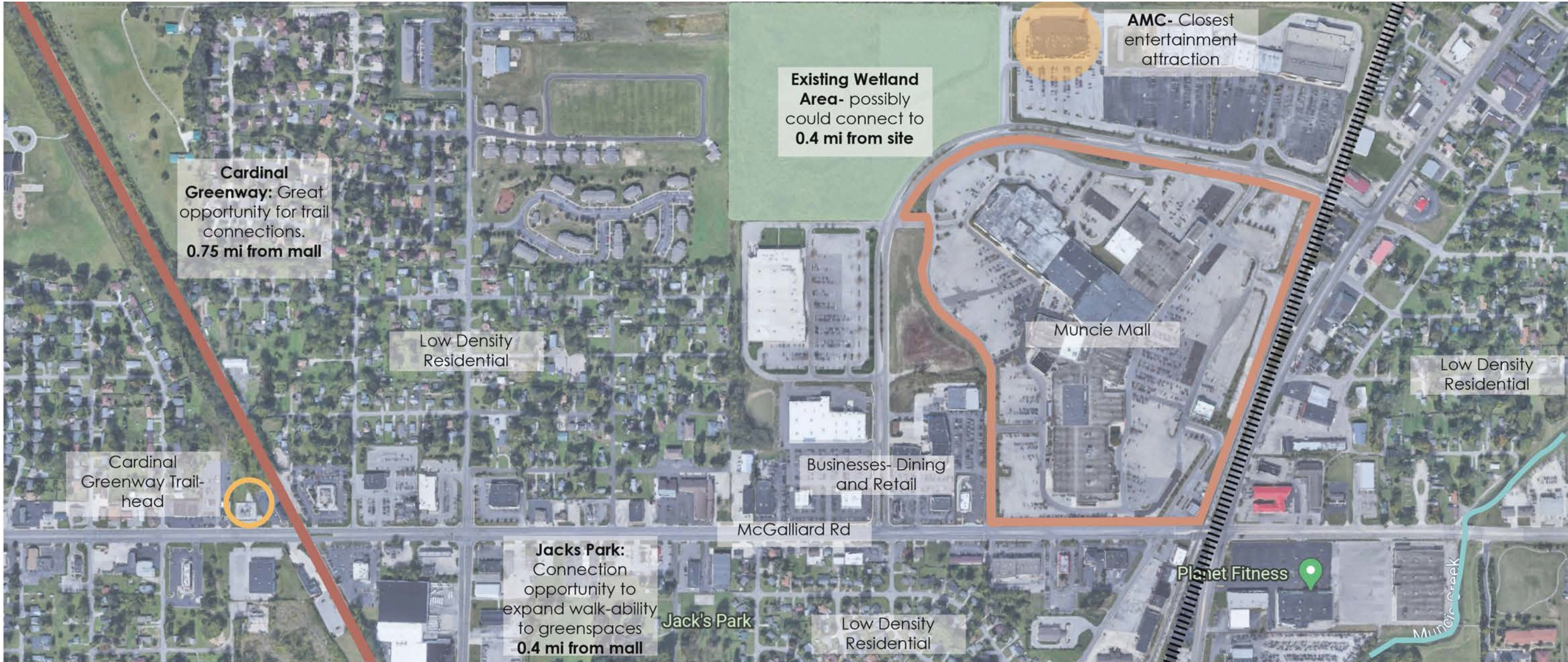
### Muncie Craddock Wetlands

This is a wetland preserve near the center of Muncie has restored the wetland ecosystem present before settlement and agricultural development. The creators are dedicated to "restoration and creation of high quality wetlands throughout the state, and conserve and protect Indiana's remaining wetlands." This preserve contains 27 acres of woodland, wetland, and prairie that are traversed by an ADA compliant raised walkways, as well as contains signs to educate visitors, pavilions, and seating areas.

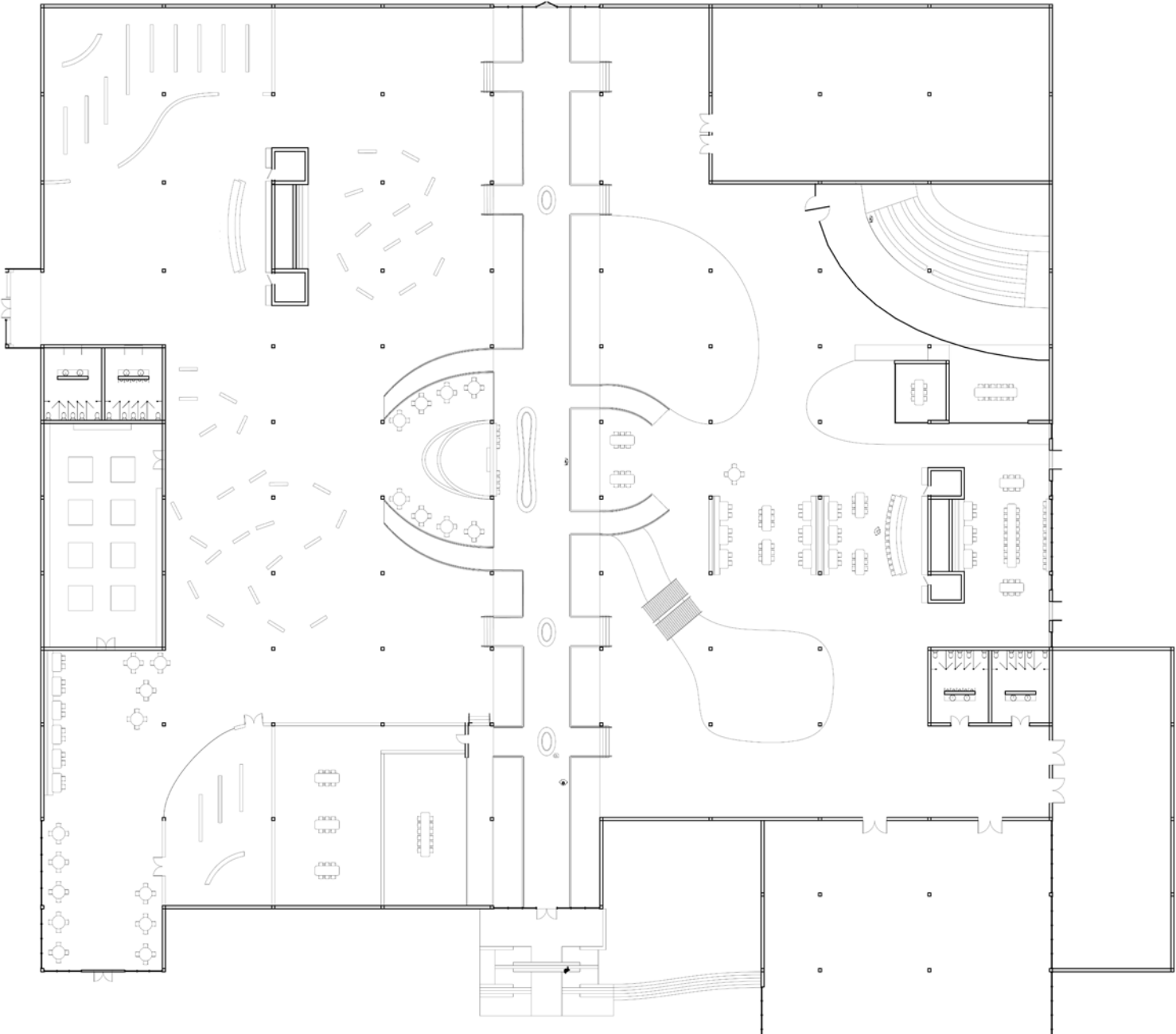
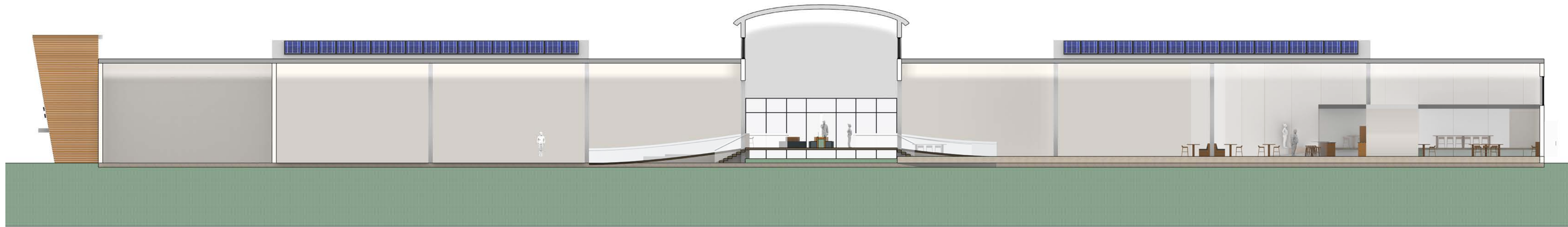
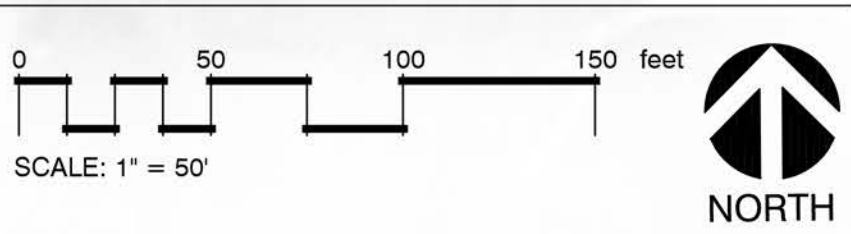


### City Square Mall

Singapore's first eco-friendly mall, City Square Mall is an innovative mixed-use development built in conjunction with City Green Park. Envisioned as a city fringe Community Hub, CSM serves as the ideal setting for the community to meet, learn, shop, and play. Recognized for its pioneering green design, CSM features numerous sustainability features that greatly reduce the building's environmental impact.



- |                         |                        |                        |                      |                           |                        |                           |                                     |                        |
|-------------------------|------------------------|------------------------|----------------------|---------------------------|------------------------|---------------------------|-------------------------------------|------------------------|
| <b>Exterior Legend:</b> | 5. Bus Drop-Off        | 10. Forests of Indiana | 15. Outdoor Dining   | <b>Interior Legend:</b>   | E) Mall Entrance       | J) Cafe and Water Feature | N) Conservatory and Butterfly House | R) Electricity Exhibit |
| 1. Bioswale             | 6. Patio Space         | 11. Amphitheater       | 16. Water Collection | A) Entrance/Lobby         | F) Storage/Utility     |                           | S) Changing Exhibits                |                        |
| 2. Pavilion             | 7. Pollinator Garden   | 12. Sensory Garden     | 17. Edible Garden    | B) Main Desk              | G) Theatre Space       | K) Water Exhibits         | O) Raised Walkway                   | T) Public Labs         |
| 3. Bike Share           | 8. Pollinator Stations | 13. Venue Lawn         | 18. Utility Drive    | C) Gift Shop              | H) Office Spaces       | L) Wildlife Exhibit       | P) Lounge                           |                        |
| 4. Overlook Seating     | 9. Nature Play         | 14. Pond with Pavilion | 19. Urban Wetland    | D) Sustainability Exhibit | I) Agriculture Exhibit | M) Native Plants          | Q) Indiana's Habitats               |                        |



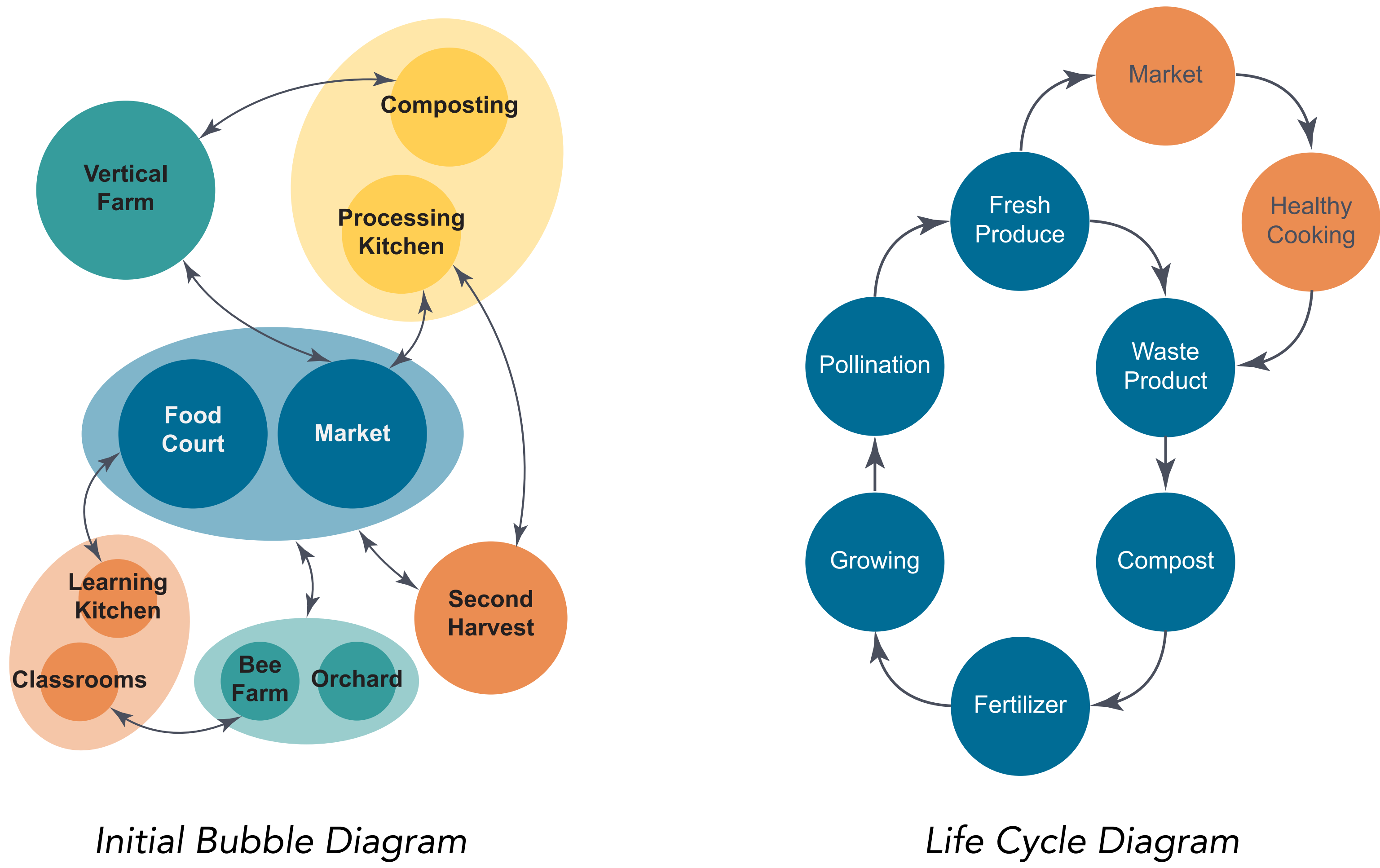




- Farmer's market
- Learning Kitchen
- Hydroponic garden
- Distribution & Processing
- Bee Farm
- Composting Station
- Public eating space
- Food pantry

## A sustainable, food-centric plan for the north wing of Muncie Mall.

The Farm is a community center that aims to mitigate the burden of food insecurity in the Muncie area. Muncie has a food insecurity rate of 17.2% — the fourth highest in the state. This issue is multi-faceted, and a carefully designed sustainability center can address the problem from multiple angles.



## Education

A core function of this center is to aid in the well-rounded education of Muncie community. The combination of a **learning kitchen**, a viewable **hydroponic garden**, and a **bee farm** will present a holistic approach to teaching kids about sustainability and life cycles, which is urgently needed as we confront human effects on the environment. In addition, the learning kitchen provides more practical skills and encourages kids to take an active role in their nutrition.

While the educational aspects of The Farm are youth-focused, they can be adapted for adults as well. The learning kitchen, for example, could serve to both teach essential, introductory cooking skills for kids, as well as provide more advanced lessons for adults who want to broaden their horizons.

## Economy

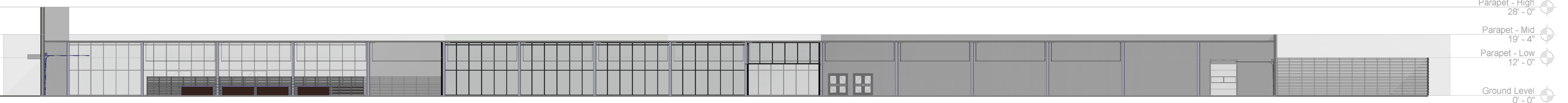
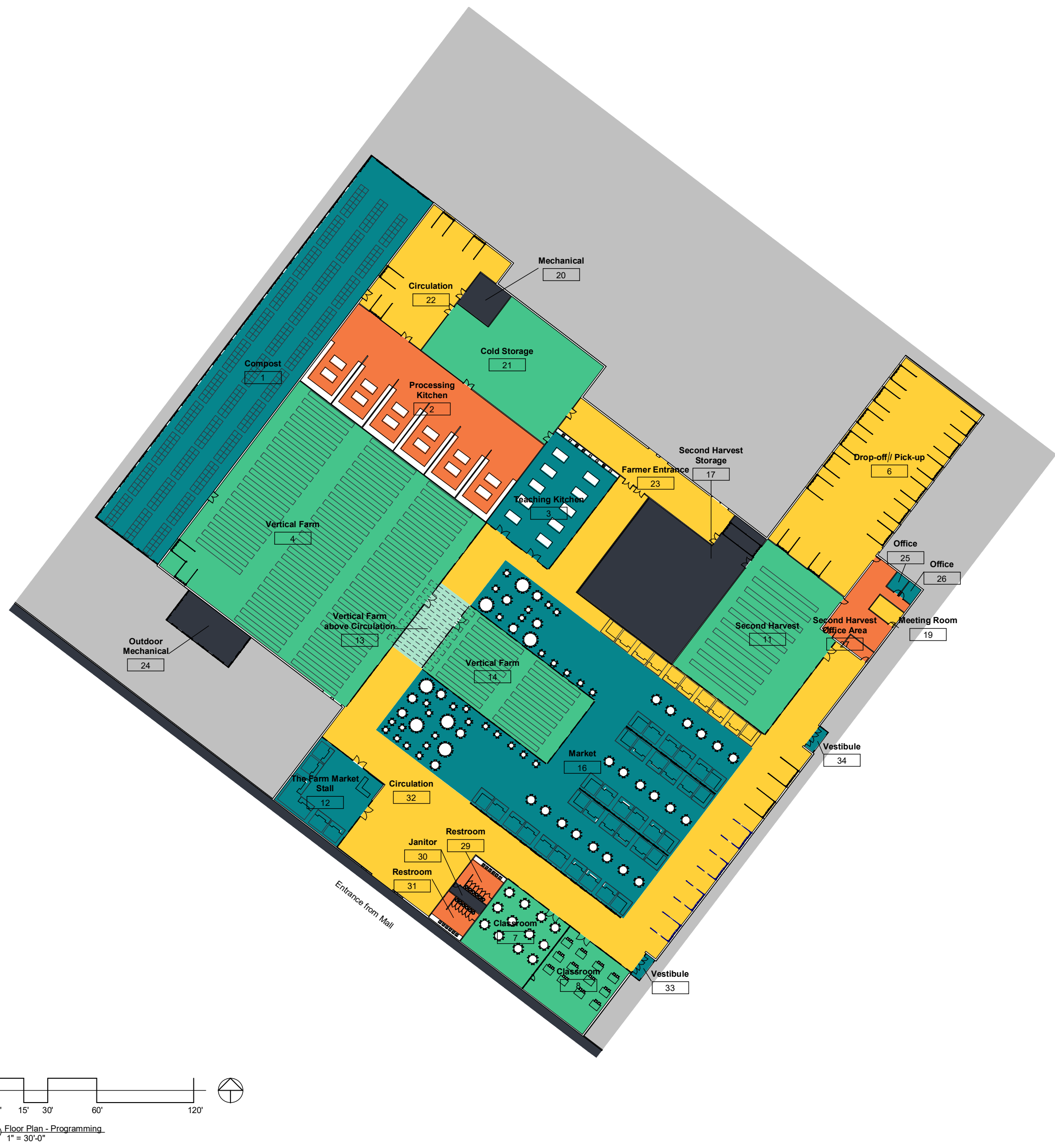
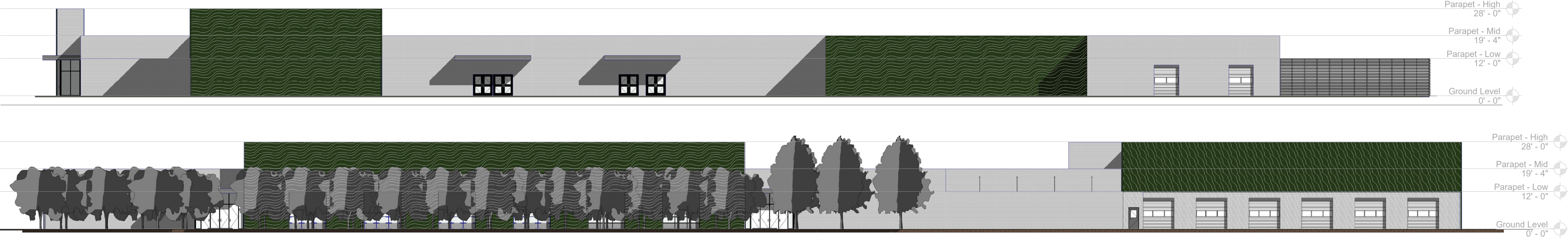
The Farm's programs can speak to the needs of low-income families who don't have the time or resources to research and cook healthy meals. Muncie continually deals with the issue of food deserts, which restrict residents' access to fresh, healthy foods. Creating a daily, indoor **farmers market** in a central Muncie landmark can help solve this problem. The Farm also helps farmers economically by providing them a place to market, store and process goods.

When paired with other programs, food literacy has also been shown to mitigate the burden of food insecurity for low-income families. The learning kitchen fills this role by providing kids and parents with nutritional education, first-hand cooking experience, and new recipe ideas.

Funding for The Farm could come from several avenues. Selling produce from the hydroponic farm could serve as a stable source of revenue. The center will charge farmers a monthly fee to occupy a booth in the public market. Reliance on renewable energy will offset utility costs. Finally, the community center may be eligible for grants that fund programs related to vertical agriculture and other sustainability initiatives.

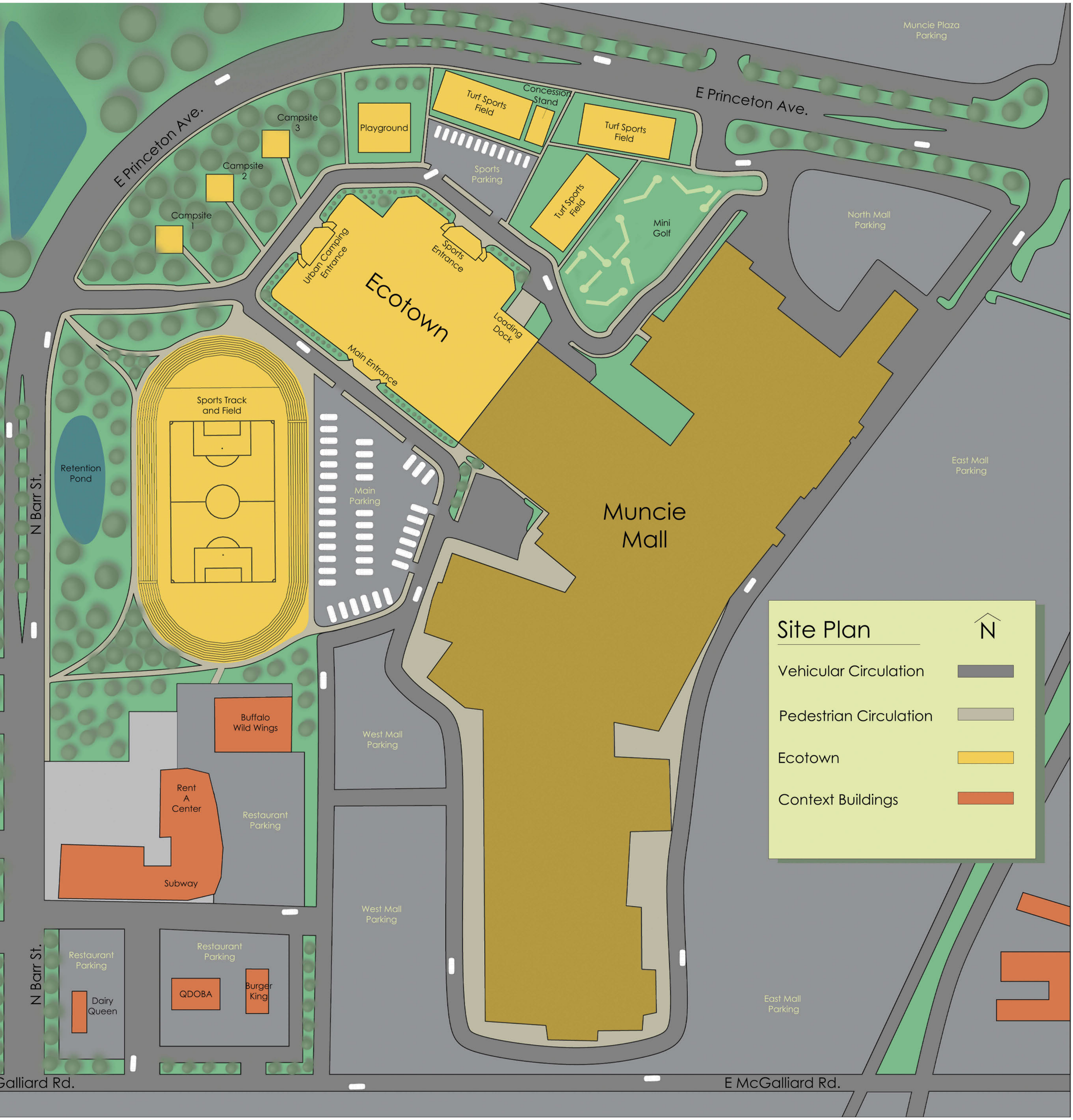
## Social Well-Being

The **public eating space** (and The Farm as a whole) provide a place for Muncie residents to gather and strengthen social ties. The shared experience of all the aforementioned activities — commerce, cooking and socializing — can contribute to a stronger, healthier, more sustainable Muncie.





# Ecotown



## Overview

Ecotown is a holistic recreation center that provides opportunities for visitors to be active while having fun. Ecotown will contain some traditional gym features such as a basketball court, athletic turf court, as well as studios for dance, yoga, or other activities. However, Ecotown will stand out from other gyms and recreation centers because it offers unique activities that will promote health and sociability, such as a putt-putt course, a rock wall, a ropes course, urban camping sites, and nature trails. Instead of focusing solely on physical fitness, Ecotown will offer enjoyable recreation opportunities for visitors of all ages that encourage activity, education, and socialization.

The center will be physically and financially accessible to people of all ages and backgrounds, making it socially sustainable. The center will be located in the Muncie Mall where the previous Macy's store was located. This location will link to the Cardinal Greenway Trail and will be easily accessible for bikers. There is also a MITS bus stop on the mall property, so community members who rely on buses for transportation will be able to enjoy all the activities and amenities as well. Ecotown will be developed in phases to be cost effective, and this will allow for more affordable expansions in the future. Environmental sustainability is a core value of Ecotown, and Ecotown will use as many sustainable materials and building methods as possible, for example the project will include solar panels, permeable walkways, and passive systems for natural lighting and ventilation.



## Proposed Design

The design for Ecotown consists of various programming and circulation space in both indoor and outdoor areas. The full list of the indoor programming for Ecotown includes office spaces, a check-in area, a concession stand, a rock wall, ropes course, a portion of the putt putt course, basketball court, an indoor athletic field, and an indoor track. The outdoor programming will include a few athletic fields, a track, a portion of the putt-putt course, a playground, a concession stand, the urban campsites, and nature trails.

All of the program goals connect in the sense that they promote active recreation in a variety of ways, and offer entertainment for all ages. The design and placement of these programs encourages connectivity between them. The indoor programs overlap spatially, several of the programs connecting with the atrium and the indoor track looking down on several of the activities.



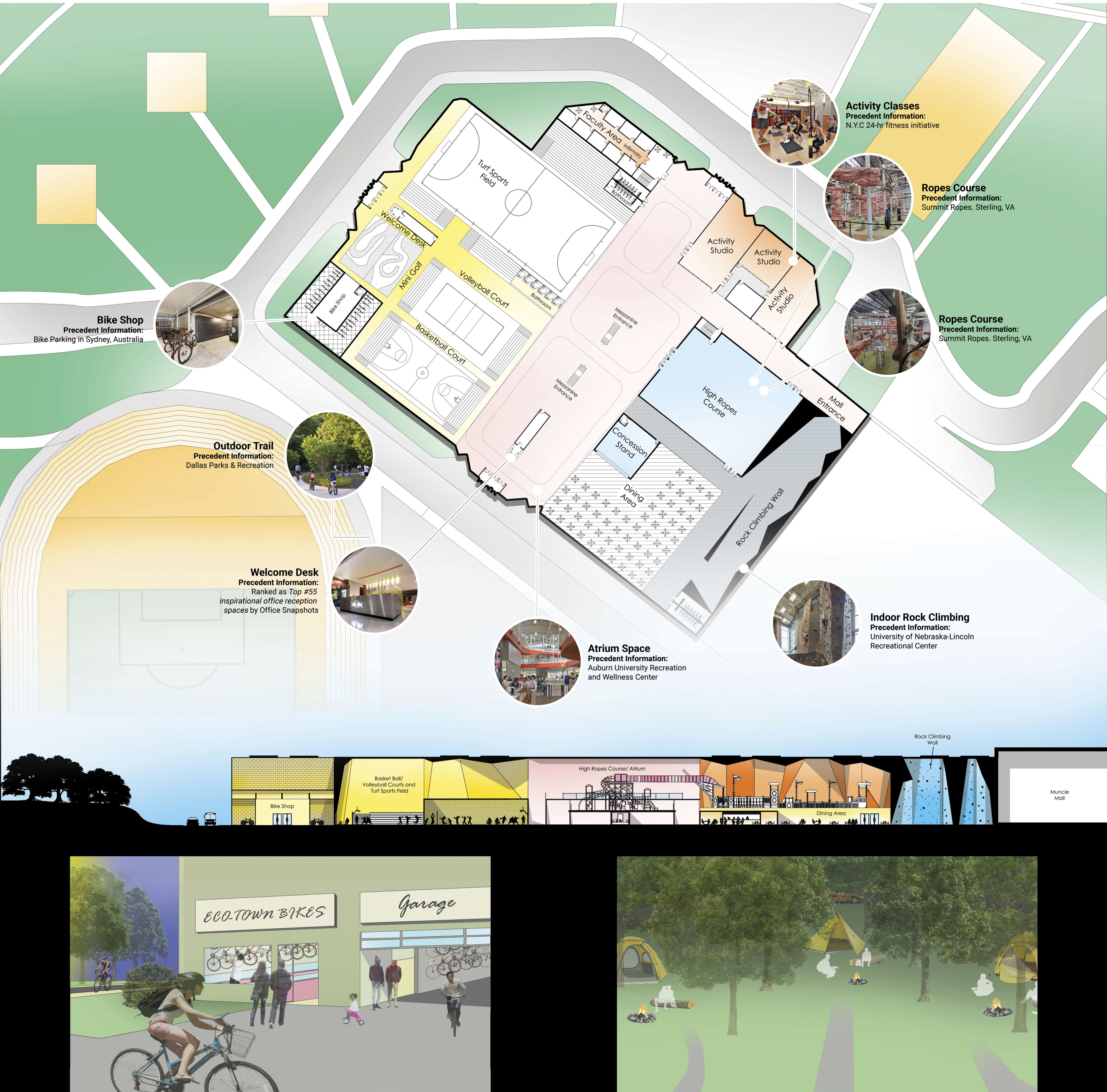
## Community Need

Muncie lacks a recreation center that offers entertaining activities that promote wellness and health, and sustainable lifestyles. Ecotown has features that differ from a traditional gym and focus more on enjoyable opportunities to be physically active. There is also a significant population in Muncie that is financially distressed and Ecotown will offer affordable and fun activities that can accommodate families who would not be able to afford a full priced gym membership. Different programs geared towards various age groups will also allow for different community groups to enjoy specific aspects of Ecotown.



## Sustainable Agenda

Ecotown will be built sustainably and will be designed so that its sustainable features help to educate the public. The building will use clean energy through solar panels and will use passive systems to maximize natural lighting and ventilation. The parking lot and nature trails will be made from Porous Pave, a sustainable, permeable pavement to prevent standing water and excess runoff. Signage will be posted throughout the center explaining how these sustainable systems operate, and offer suggestions on how visitors can implement these practices on a smaller scale. Ecotown will also offer recycling throughout its spaces and will have clear guides posted on what materials can be recycled.



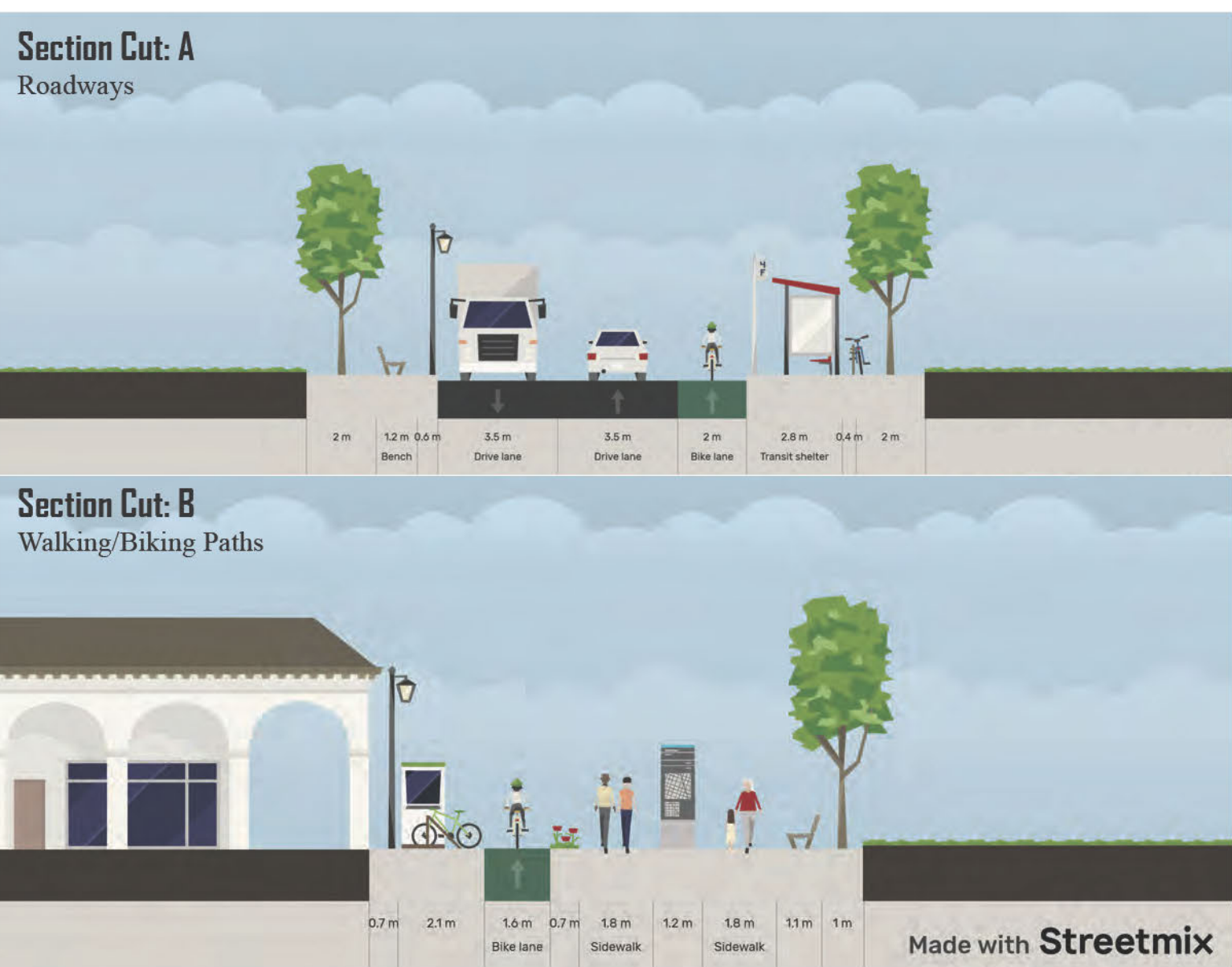


MUNCIE MADE MATERIALS

The vision for this proposal is to foster waste reduction and viable management practices for the collection of raw materials, post-consumer materials, and hazardous waste in Muncie, which will lead towards a more environmentally sustainable economy.

The completed center would allow the city of Muncie to be a leader in promoting sustainable practices while creating a beautiful, multi-use, public facility.

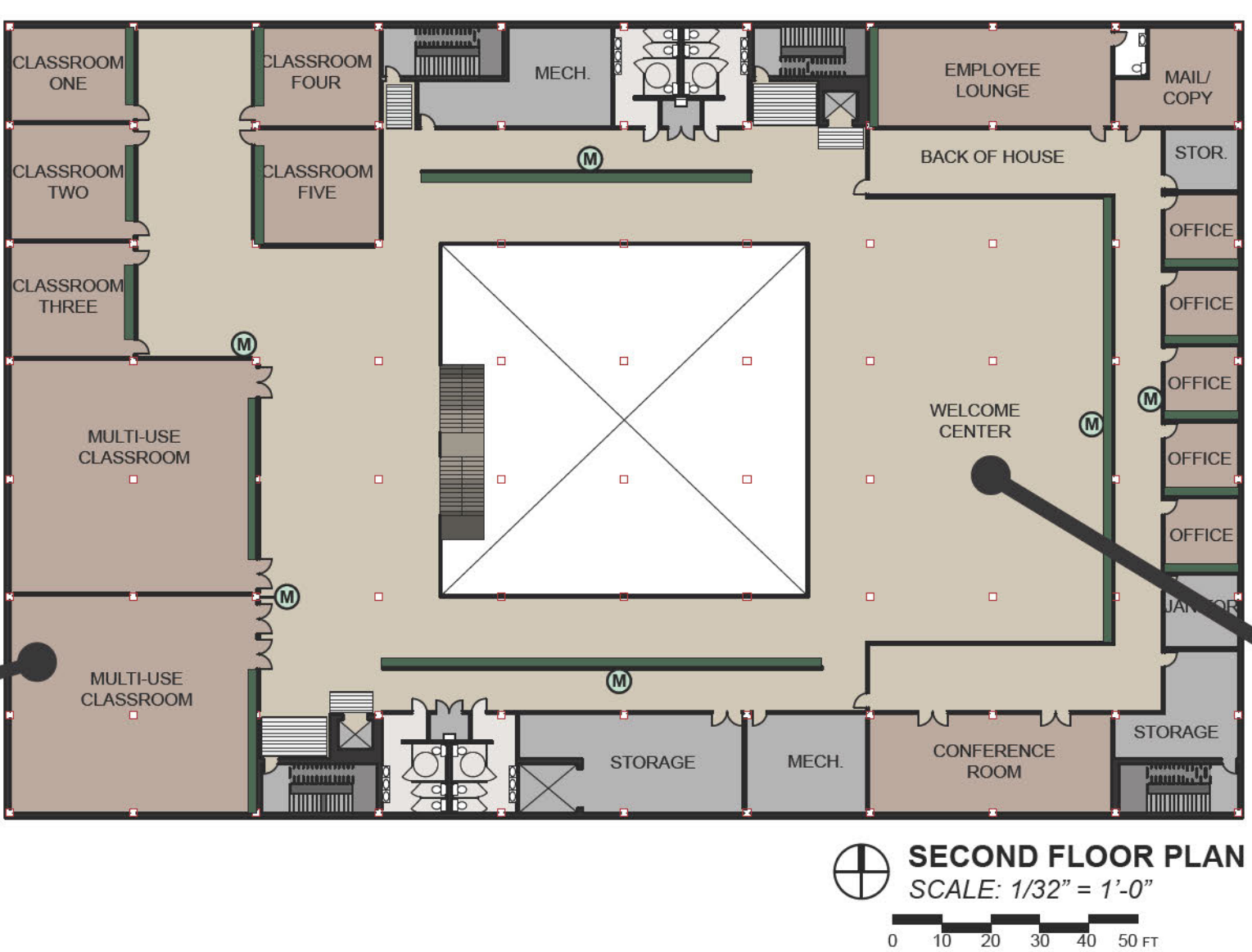
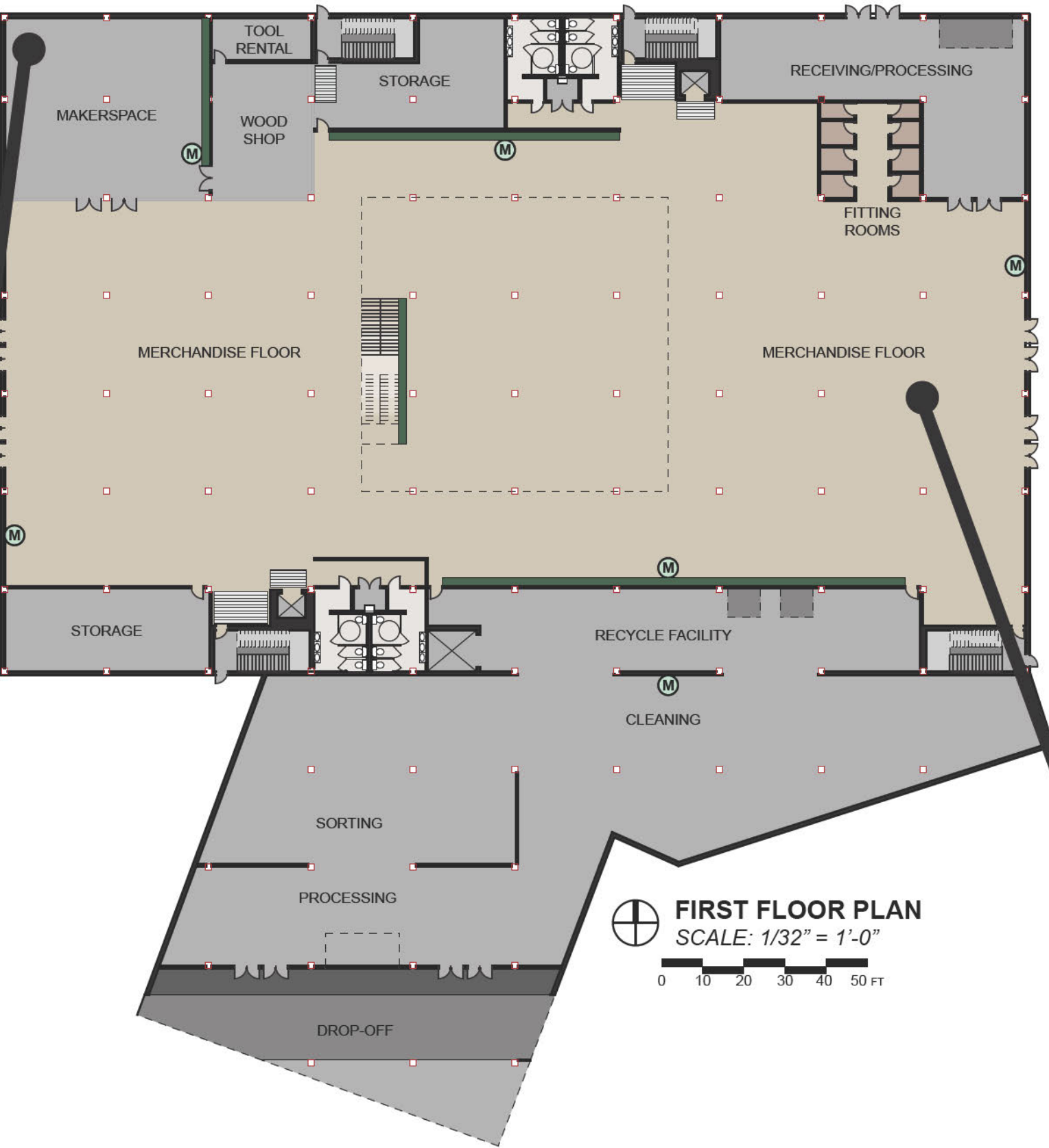
The complex will include a material collection facility, education center, and a makerspace studio.



The makerspace is designed with floor to ceiling windows for natural lighting, and provides a space for allocated for students and community members who are interested in utilizing the tools and workspace provided for material reuse. The space will provide an opportunity for upcycling and reuse through modification



The multi-use classrooms will provide an opportunity for hands-on and visual learning experiences, while in a space that highlights sustainable features such as the saw-tooth roof with skylights that allow for north lighting for an optimal work environment.



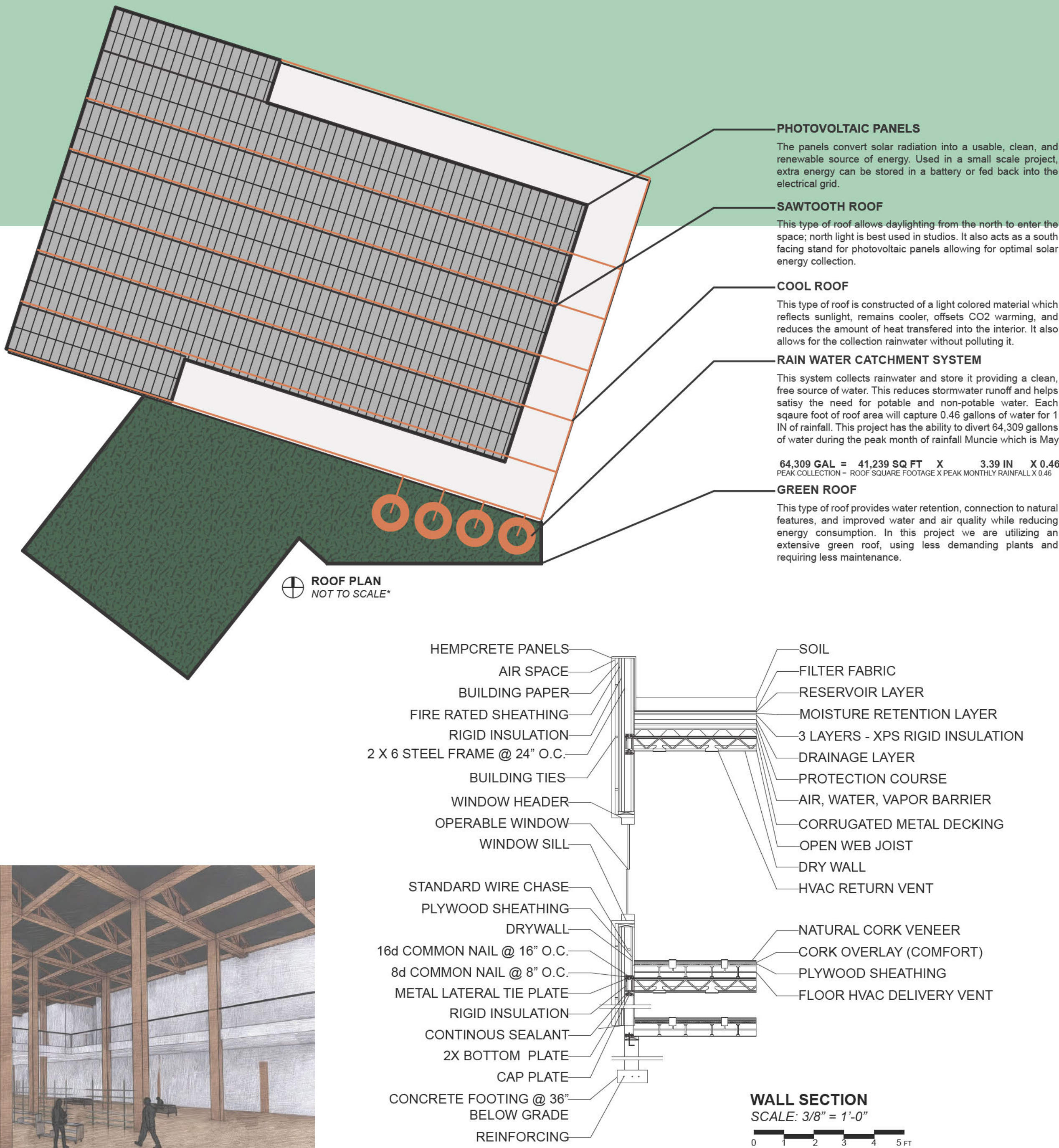
- LEGEND
- RECYCLED TILE
- CORK
- RECLAIMED WOOD
- CONCRETE (FLYASH)
- NAAVA GREEN WALL
- GRADED FLOOR SYSTEM
- AIR QUALITY MONITOR



The merchandise floor is located on the first floor of the center; and will be what guests see when they first enter the facility. The open floorplan will house donated items such as clothing, furniture, household items, appliances, and any other items that are in acceptable condition to be resold.



The Welcome Center is located on the second floor, where guests are able to overlook the rest of the center below them, or across the multi-use classrooms and offices. This space is also where guest can wait for upcoming tours, and view the centers directory.



The south-facing entrance to Carson's will be converted to a recycling drop-off location where community members can drive up with their consolidated recyclable items to be sorted and collected for pick-up by community partners.

MUNCIE MADE MATERIALS TIMELINE

